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Application No. 09/630,572

AMENDMENT TO THE CLAIMS

A listing of the claims presented in this patent application appears below. This listing replaces all prior versions and listing of claims in this patent application.

Claim 1 (previously amended): An image processing apparatus, comprising:
edge detecting means for determining the presence/absence of an edge at each pixel of input data and detecting a position of the edge at each edge pixel;
selecting means for selecting a weighting matrix corresponding to the position of the edge of each target pixel determined to have an edge by said edge detecting means;
enhancement range determining means for determining, using said weighting matrix, a range of edge enhancement of each said target pixel determined to have an edge; and
edge enhancing means for executing an edge enhancement process on data of object pixels within the enhancement range determined by said enhancement range determining means.

Claim 2 (original): An image processing apparatus according to claim 1, wherein said enhancement range determining means increases the weighting of components corresponding to the interior side of the edge in the weighting matrix.

Claim 3 (original): An image processing apparatus according to claim 1, wherein said edge detecting means determines the edge to be between pixels.

Claim 4 (currently amended): An image processing apparatus according to claim 1, wherein said ~~enhancement range determining~~ selecting means selects the weighting matrix based on the presence/absence of an edge in four directions surrounding the target pixel.

Claim 5 (original): An image processing apparatus according to claim 1, wherein said edge enhancing means executes processing based on the hue and chroma of the pixels surrounding the object pixel.

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Claim 6 (original): An image processing apparatus according to claim 1, wherein said edge enhancing means executes processing based on the distance of the object pixel to the target pixel.

Claim 7 (currently amended): An image processing method, comprising the steps of:
determining the presence/absence of an edge at each pixel of input image data;
selecting a weighting matrix corresponding to the position of the edge for each target pixel determined to have an edge;
determining, using said weighting matrix, a range of edge enhancement for each said target pixel determined to have an edge; and
executing an edge enhancement process for the object pixels within the determined edge enhancement range.

Claim 8 (original): An image processing method according to claim 7, wherein the weighting of components corresponding to the interior side of the edge in the weighting matrix is increased in the step of determining the range.

Claim 9 (previously amended): A medium readable by a computer storing computer-executable programs comprising the steps of:
determining the presence/absence of an edge at each pixel of input image data;
selecting a weighting matrix corresponding to the position of the edge for each target pixel determined to have an edge;
determining, using said weighting matrix, a range of edge enhancement for each said target pixel determined to have an edge; and
executing an edge enhancement process for the object pixels within the determined edge enhancement range.

Claim 10 (canceled).

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Claim 11 (previously presented): An image processing apparatus, comprising:
an edge detector for determining the presence/absence of an edge at each pixel of input data and detecting a position of the edge at each edge pixel;
a selector for selecting a weighting matrix corresponding to the position of the edge of each target pixel determined to have an edge by said edge detecting means; and
a controller configured to determine, using said weighting matrix, the range of edge enhancement of each said target pixel determined to have an edge;
said controller further configured to execute an edge enhancement process on data of object pixels within the enhancement range determined by said enhancement range determining means.